

CURRENT 55~110 Ampere
VOLTAGE RANG 600 to 1800 Volts

MTC110-16 THRU MFC110-16

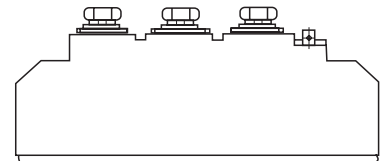
特点

- 1). 芯片与底板电气绝缘, 2500V交流绝缘
- 2). 全压接结构, 优良的温度特性和功率循环能力
- 3). 体积小,重量轻

$I_{T(AV)}$	55~110 A
V_{DRM}/V_{RRM}	600~1800V
I_{TSM}	$2.4 A \times 10^3$
I^2t	$29 A^2S \times 10^3$

典型应用

- 1). 交直流电机控制
- 2). 各种整流电源
- 3). 变频器



主要参数

符号	参数	测试条件	结温	参数值			单位	
			$T_j(^{\circ}C)$	最小	典型	最大		
$I_{T(AV)}$	通态平均电流	180° 正弦半波, 50Hz单面散热, $T_c=85^{\circ}C$	125			55/70 90/110	A	
$I_{T(RMS)}$	方均根电流		125			173	A	
V_{DRM} V_{RRM}	断态重复峰值电压 反向重复峰值电压	$V_{DRM} \& V_{RRM} \quad tp=10ms$ $V_{DSM} \& V_{RSM} = V_{DRM} \& V_{RRM} + 200V$	125	600		1800	V	
I_{DRM} I_{RRM}	断态重复峰值电流 反向重复峰值电流	$V_{DM} = V_{DRM}$ $V_{RM} = V_{RRM}$	125			12	mA	
I_{TSM}	通态不重复浪涌电流	10ms 正弦半波	125			2.40	KA	
I^2t	浪涌电流平方时间积	$V_R = 0.6V_{RRM}$	125			29	$A^2s \times 10^3$	
V_{TO}	门槛电压		125			0.8	V	
r_T	斜率电阻		125			2.29	$m\Omega$	
V_{TM}	通态峰值电压	$I_{TM} = 330A$	25			1.69	V	
dv/dt	断态电压临界上升率	$V_{DM} = 67\%V_{DRM}$	125			800	$V/\mu s$	
di/dt	通态电流临界上升率	$I_{TM} = 220A$, 门极触发电流幅值 $I_{GM} = 1.5A$, 门极上升时间 $tr \leq 0.5 \mu s$	125			100	$A/\mu s$	
I_{GT}	门极触发电流			30		100	mA	
V_{GT}	门极触发电压	$V_A = 12V, I_A = 1A$	25	1.0		2.5	V	
I_H	维持电流			20		150	mA	
V_{GD}	门极不触发电压	At $67\%V_{DRM}$	125			0.2	V	
$R_{th(j-c)}$	热阻抗(结至壳)	180° 正弦波, 单面散热				0.250	$^{\circ}C/W$	
$R_{th(c-h)}$	热阻抗(壳至散)	180° 正弦波, 单面散热				0.15	$^{\circ}C/W$	
V_{iso}	绝缘电压	50Hz, R.M.S, $t=1min, I_{iso}: 1mA(MAX)$		2500			V	
F_m	安装扭矩(M5)				4		N·m	
	安装扭矩(M6)				6		N·m	
T_{stg}	贮存温度			-40		125	$^{\circ}C$	
W_t	质量	外形为201F			160		g	
Size	包装盒尺寸	210 × 113 × 42 (8只装)						mm

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RATING AND CHARACTERISTIC CURVES MTC110-16 Thru MFC110-16

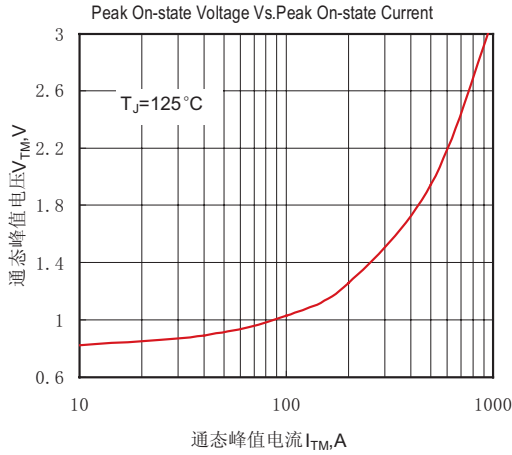


Fig.1 通态伏安特性曲线

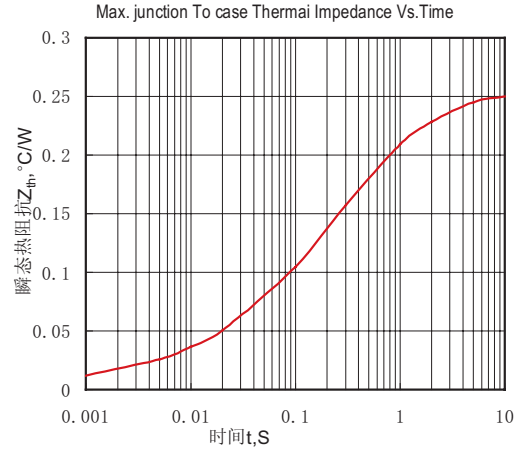


Fig.2 结至管壳瞬态热阻抗曲线

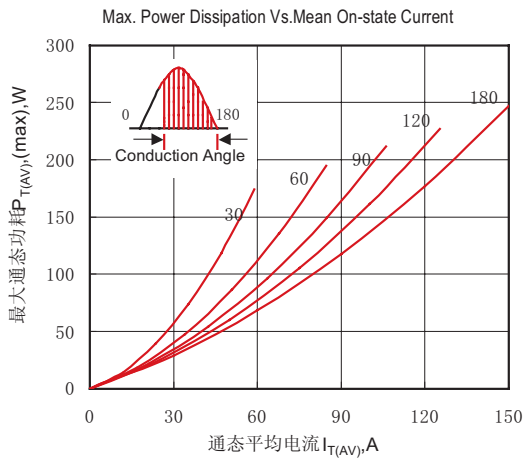


Fig.3 最大功耗与平均电流关系曲线

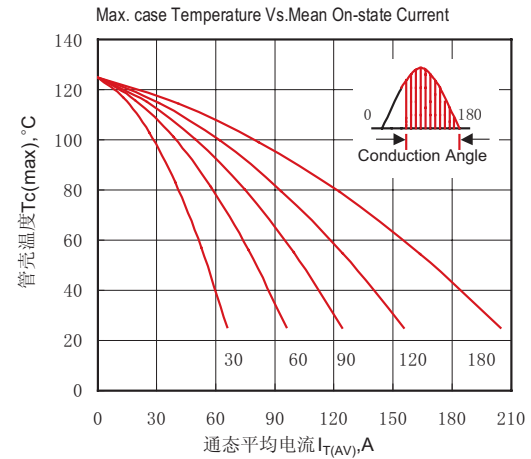


Fig.4 管壳温度与通态平均电流关系曲线

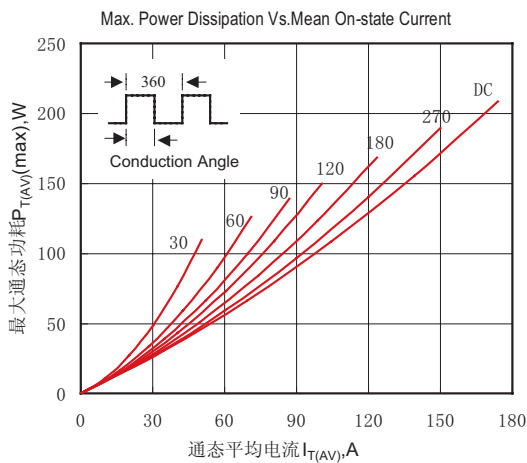


Fig.5 最大功耗与平均电流关系曲线

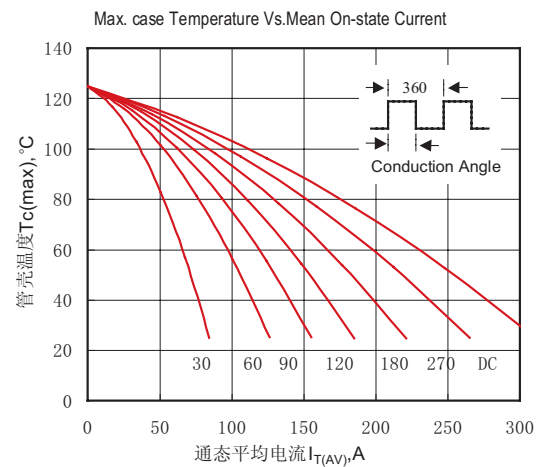


Fig.6 管壳温度与通态平均电流关系曲线

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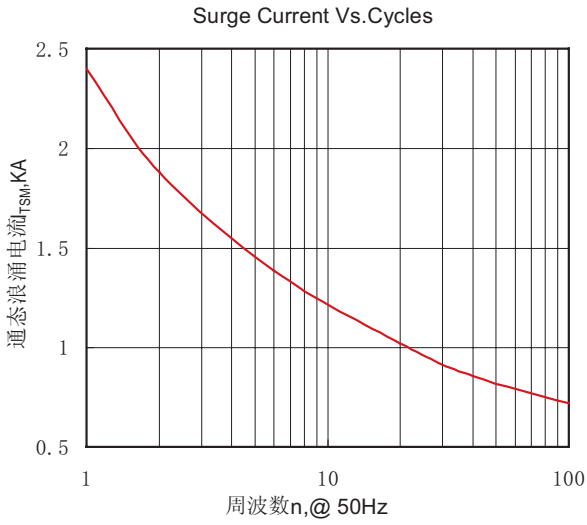


Fig.7 通态浪涌电流与周波数的关系曲线

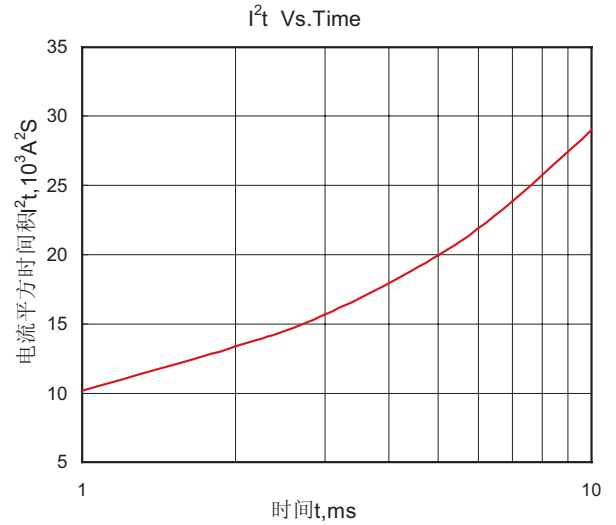


Fig.8 I^2t 特性曲线

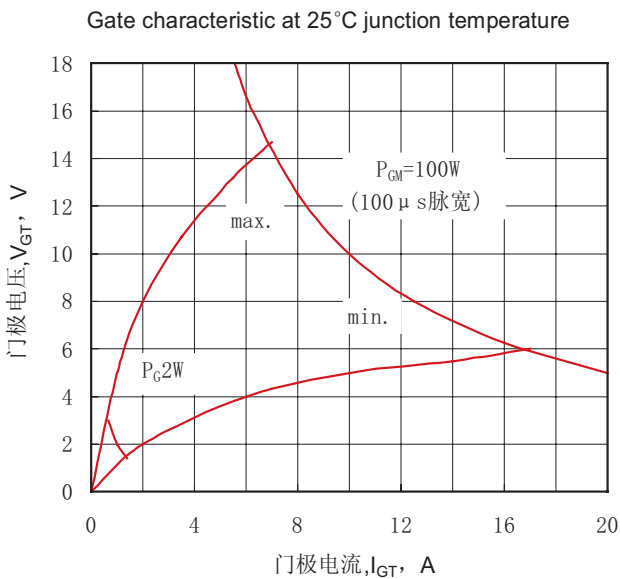


Fig.9 门极功率曲线

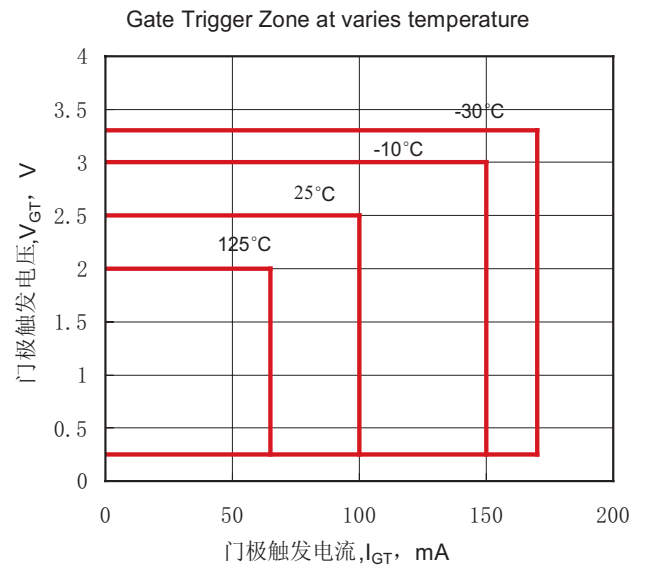


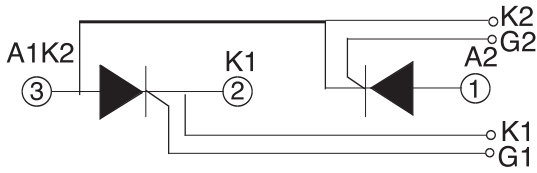
Fig.10 门极触发特性曲线

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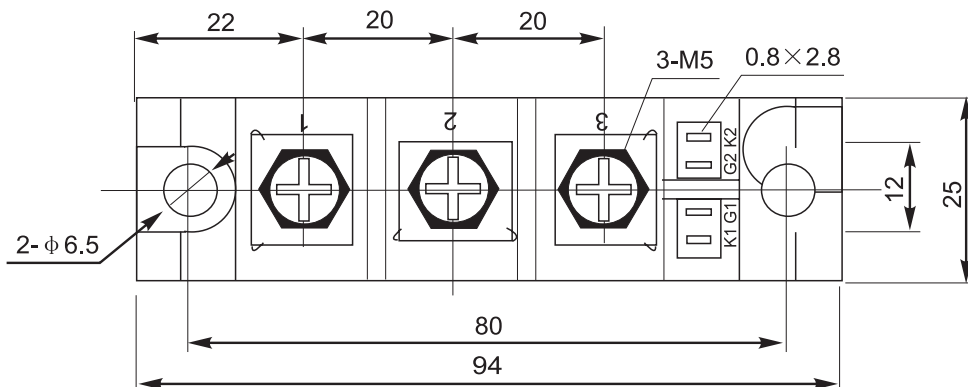
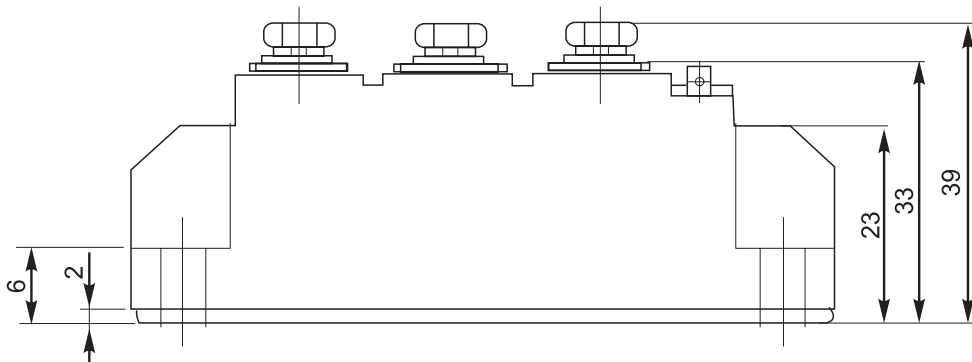
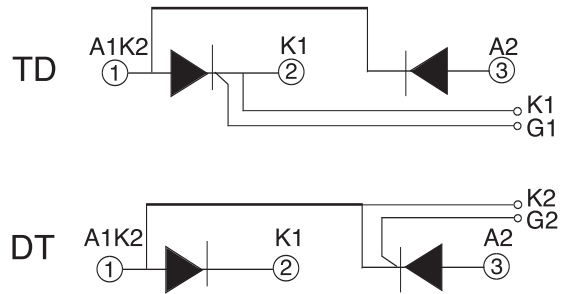
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Package Outline Information

MTC双控



MFC单控



CASE: D1